Title (en)

Signal separation device and signal separation method

Title (de)

Signaltrennungsanordnung und Signaltrennungsverfahren

Title (fr)

Dispositif et procédé de separation des signaux

Publication

**EP 1596521 A2 20051116 (EN)**

Application

**EP 05252920 A 20050512**

Priority

JP 2004144182 A 20040513

Abstract (en)

A signal separation device is disclosed that is able to reduce a number of calculations required when separating a received signal transmitted from transmission devices into the individual transmission signal. The signal separation device includes a signal point derivation unit that multiplies the received signal with respective elements of a unitary matrix, and derives at least one received-signal signal point on a signal constellation diagram; a definition unit that defines plural sections on the signal constellation diagram, each of the sections including a predetermined number of signal points; a detection unit that detects a received-signal section from the sections, the received-signal section including the received-signal signal point; a selection unit that selects signal points in the received-signal section as candidates of the received-signal signal point; and a determination unit that determines the transmission signals based on the selected signal points.

IPC 1-7

**H04L 1/06**; H04L 25/06; H04L 27/38

IPC 8 full level

**H04L 1/06** (2006.01); **H04B 7/04** (2006.01); **H04L 25/03** (2006.01); **H04L 25/06** (2006.01); **H04L 27/38** (2006.01); H03M 13/45 (2006.01); H04L 25/02 (2006.01)

CPC (source: EP KR US)

**H04B 7/04** (2013.01 - EP KR US); **H04L 25/0204** (2013.01 - KR); **H04L 25/0228** (2013.01 - KR); **H04L 25/0246** (2013.01 - KR); **H04L 25/03331** (2013.01 - EP KR US); H04L 25/0204 (2013.01 - EP US); H04L 25/0228 (2013.01 - EP US); H04L 25/0246 (2013.01 - EP US); H04L 2025/0342 (2013.01 - EP KR US)

Cited by

CN105656551A; CN101896919A; US9013277B2; WO2009074911A3

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR LV MK YU

DOCDB simple family (publication)

**EP 1596521 A2 20051116**; **EP 1596521 A3 20071114**; **EP 1596521 B1 20130403**; CN 1863184 A 20061115; CN 1863184 B 20100825; ES 2410815 T3 20130703; KR 100638705 B1 20061030; KR 20060047844 A 20060518; US 2005259771 A1 20051124; US 7672408 B2 20100302

DOCDB simple family (application)

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